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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,158	04/30/2001	Judith A. Johnson	064752.0311	4213

7590

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EXAMINER

BOOKER, KELVIN E

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/846,158

Applicant(s)

JOHNSON, JUDITH A.

Examiner

Kelvin E Booker

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2,3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Detailed Office Action.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1-24** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. **Claims 1, 7, 14 and 20** are directed at a method for interfacing a genetic search algorithm to a web environment without disclosing any computer implemented processing. Abstract ideas (see *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759) or the mere manipulation of abstract ideas (see *Schrader*, 22 F.3d at 292-93, 30 USPQ2d at 1457-58) are not patentable.

As disclosed, independent **claims 1, 7, 14 and 20** focus on nonfunctional descriptive material, which is inclusive of the mere arrangement of data without engaging functionality when employed as a computer component.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. **Claims 1-4** are rejected under 35 U.S.C. 102(a) as being anticipated by Wallace et al., “Haskell and XML: Generic Combinators or Type-Based Translation?” [hereafter Wallace].

**As per claim 1**, Wallace teaches of a method for interfacing a genetic search algorithm to the web environment of the Internet, comprising:

A. defining data elements, attributes and rules for use thereof for an extensible markup language (XML) (see page 148, section 1.1, column 1);

B. storing the XML in a document type definition file (DTD) (see page 148, section 1.1, column 1);

C. describing data in a document in a hierarchical format utilizing the stored XML (see page 148, section 1.2, column 2); and

D. importing the data in the document to a genetic algorithm to define a data string or an individual in a population of points (see page 149, section 1.3, column 2).

**As per claim 2**, Wallace teaches of a method for interfacing a genetic search algorithm wherein defining data elements, attributes and rules comprises defining a tree-based crossover operator (see page 151, section 5, column 2).

**As per claim 3**, Wallace teaches of a method for interfacing a genetic search algorithm wherein defining data elements, attributes and rules comprises defining a mutation operator (see (see page 151, section 5, column 2).

**As per claim 4**, Wallace teaches of a method for interfacing a genetic search algorithm further comprising importing elements from the document definition file as nodes of the stored XML (see page 158, section 6, column 2).

*Conclusion*

5. The following prior art made of record and not relied upon, is considered pertinent to applicant's disclosure:

- A. Kerven et al., U.S. Patent Application Publication No. 2002/0042784;
- B. Hsiung et al., U.S. Patent Application Publication No. 2003/0109951;
- C. Hsiung et al., U.S. Patent Application Publication No. 2003/0083756;
- D. Hsiung et al., U.S. Patent Application Publication No. 2003/0144746;
- E. Keith, U.S. Patent No. 6,629,097;
- F. Royappa, "Implementing Catalog Clearinghouses with XML and XSL";
- G. Rabarijaona et al., "Building and Searching an XML-Based Corporate Memory";
- H. Abiteboul, "On Views and XML";
- I. Joseph et al., "Design of a Parallel Genetic Algorithm For The Internet";
- J. Carmel et al., "XML and Information Retrieval: A SIGIR 2000 Workshop";
- K. Katayama et al., "A New Iterated Local Search Algorithm Using Genetic Crossover for the Traveling Salesman Problem";
- L. Chen et al., "Intelligent Spider for Internet Searching";
- M. DeRose, "XML Linking", ACM Computing Surveys, December 1999;
- N. Gogan et al., "The Use of Neural Networks for Structural Search on Web";
- O. Goldman et al., "WSQ/DSQ: A Practice Approach for Combined Querying of Databases and the Web";
- P. Dix, "Interactive Querying Locating and Discovering Information";

Q. Buraga et al., "An XML-Based Query Language Used in Structural Search Activity on Web";

R. Ciancarini et al., "Managing Complex Documents Over the WWW: A Case Study for XML"; and

S. Kendall et al., "Information Delivery Systems: An Exploration of Web Pull and Push Technology".

6. An inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Booker whose telephone number is (703) 308-4088. The examiner can normally be reached on Monday-Friday from 7:00 AM-5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight, can be reached on (703) 308-3179. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

An inquiry of a general nature or relating to the status of this application proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
**Anthony Knight**  
Supervisory Patent Examiner  
Group 3600

**K.E.B.**

**Art Unit 2121**

**June 23, 2004**